

## I CLAIM:

1. An angle measuring system comprising:  
a rotor that rotates about an axis of rotation;  
a scanning unit spaced from said rotor, said scanning unit  
5 attached to a stator;  
a base;  
a coupling connected to said base and said stator so that a  
torsion-proof connection between said base and said stator results, wherein said  
coupling permits radial and axial compensating movements of said stator with respect  
10 to said base and said axis of rotation, wherein a first stop at said base and a second  
stop at said stator limit said radial and axial compensating movements.
2. The angle measuring system of claim 1, wherein said coupling  
is produced in one piece as a punched and bent element.  
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3. The angle measuring system of claim 1, wherein said coupling  
is fastened on said base by a first screw, and said coupling is fastened on said stator by  
a second screw.
- 20 4. The angle measuring system of claim 2, wherein said coupling  
is fastened on said base by a first screw, and said coupling is fastened on said stator by  
a second screw.

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5. The angle measuring system of claim 3, wherein said second stop at said stator is defined, at least in part, by said first screw projecting into an opening of said stator.

5 6. The angle measuring system of claim 3, wherein said stop at said base is defined, at least in part, by said second screw projecting into an opening of said base.

10 7. The angle measuring system of claim 5, wherein said stop at said base is defined, at least in part, by said second screw projecting into an opening of said base.

15 8. The angle measuring system of claim 5, wherein said opening of said stator is embodied as an elongated hole.

9. The angle measuring system of claim 6, wherein said opening of said base is embodied as an elongated hole.

20 10. The angle measuring system of claim 7, wherein said opening of said stator is embodied as a first elongated hole and said opening of said base is embodied as a second elongated hole.

11. The angle measuring system of claim 1, wherein said stop at  
said base comprises a projecting strip on said base.

12. The angle measuring system of claim 11, wherein said coupling  
5 is screwed to said projecting strip by said first screw.

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